

REMARKS

I. INTRODUCTION

In response to the Final Rejection mailed March 29, 1999, claims 1, 13, 19, 24, 28, 29, and 30 have been amended. Claims 1-30 remain in the application. Entry of these amendments, and re-consideration of the application, as amended, is requested.

II. SUMMARY OF THE INVENTION

The Applicants' invention addresses the problems associated with providing a streaming protocol with multiple versions, with each subsequent version of the streaming protocol additive to a previous version. When a data segment is transmitted as a data stream, a first stream of data that is in accordance with a first version of the protocol is transmitted, with additional streams of data that are in accordance with subsequent versions of the protocol appended in sequence to the first stream of data. A write module that transmits the data stream appends all such streams of data up to and including the stream of data that is in accordance with the version of the streaming protocol implemented by the write module.

At the receiving end, a read module receives the first stream of data, as well as each additional stream of data up to and including that which is in accordance with the version of the protocol that is implemented by the read module. If the end of the data segment is detected prior to receiving all of the data expected by the read module (indicating that the version of the write module was earlier than that of the read module), the read module will detect this and handle the prior version of the data segment accordingly. Moreover, if the end of the data segment is not detected after receiving all of the data expected by the read module (indicating that the version of the write module was later than that of the read module), any remaining data in the data segment is disregarded. Consequently, forward and backward compatibility between streaming protocol versions is concurrently supported.

III. ARGUMENTS

A. Rejections under 35 U.S.C. § 102

1. Rejection of Claim 1

In paragraph 1 of the Office Action dated March 29, 1999 ("Final Office Action") claims 1-6, 11, 12, and 13-30 were rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 5,598,276, issued to Cookson et al. on January 28, 1997.

The Examiner states that Cookson discloses a method of transmitting a data segment in a stream using a write module of the type which implements a selected one of a plurality of versions of a streaming protocol by disclosing "a system and method in which multiple versions of the same motion picture are stored on the same software carrier."

The Applicants respectfully disagree. As a matter of law, a claim cannot be rejected under 35 U.S.C. § 102 unless each and every claimed element can be found in one prior art reference. The Cookson reference discloses nothing, even in a peripheral discussion, about streaming *protocols*. In fact, the term "protocol" is entirely absent from the disclosure. On this basis alone, the Examiner's final rejection under 35 U.S.C. § 102, under this rationale is improper.

The Examiner apparently made the foregoing rejection under the belief that a data transfer protocol and the data payload itself are the same thing. This is evidenced by the Examiner's argument that different data content versions are analogous to different data protocol versions. (See Final Office Action, paragraph 3, in which the Examiner indicates that Cookson discloses "multiple versions of the same (one) motion picture (*protocol or data*)." (emphasis added) However, as evidenced by the Cookson reference itself, protocol and data payload are not the same thing, nor are they analogous.

The system described in the Cookson reference is incapable of handling data blocks with multiple protocol versions. At best, the Cookson reference implicitly discloses a single protocol version (which includes a series of codes and pointers provided in each block) which is used throughout.

Further, nothing in the Cookson reference discloses the technique described and claimed by the Applicants' invention, namely, sequentially *appending* additional streams of data to the first stream of data according to each subsequent version of the streaming protocol up to and including the

selected version when the selected version of the streaming protocol is not the first version of the streaming protocol. Instead, Cookson teaches *skipping over* blocks that are unique to the unselected version and moving on to other blocks of data:

“To minimize redundant storage of data, three types of video data blocks are provided in the same track, in an interleaved fashion - - - A-type blocks which contain material unique to version A, B-type blocks which contain material unique to version B, and C-type blocks which contain material common to both. A series of codes and pointers included in each block allow play of all common blocks, play of all A or B blocks depending on which version has been selected, and skipping over of the blocks which contain data unique to the unselected version.” Cookson, Abstract.

For the foregoing reasons, the Examiner’s final rejection under 35 U.S.C. § 102 is improper and must be withdrawn.

2. Rejection of Claims 2-6

The Final Office Action also rejects claims 2-6 under 35 U.S.C. § 102 as unpatentable over the Cookson reference.

Claims 2-6 include all the limitations of patentable claim 1, and are therefore patentable over the Cookson reference on this basis alone. In addition, dependent claims 2-6 include additional limitations that render the Applicants’ invention even more remote from the cited reference.

With respect to claim 2, the Examiner asserts that the VCR decoder depicted in Fig. 2 of the Cookson reference discloses the step of receiving the data segment from a data stream using a read module of the type which implements a second selected one of the plurality of versions of the steaming protocol. However, as described above, this is not the case. The system described in the Cookson reference is fundamentally incompatible with different data stream protocols. There is no disclosure whatever to suggest the VCR (or any other element, for that matter) of the Cookson reference uses a different version of a streaming protocol than any other element. On this basis alone, the final rejection of claim 2 under 35 U.S.C. § 102 is improper as a matter of law.

The Examiner also asserts that the Cookson reference discloses receiving additional stream data according to each subsequent version of the streaming protocol. However, the cited portion of the Cookson reference does not disclose receiving data streams with different protocol versions, nor does it disclose receiving additional streams of data according to subsequent versions of the streaming protocol. At best, the Cookson reference discloses receiving data blocks with the same *protocol* (and even then, only implicitly, since the underlying protocol is never mentioned) but different *content*.

Also, as the Examiner admits, the Cookson reference discloses skipping blocks, not appending data streams, like the Applicants' claimed invention. (See Final Office Action, paragraph 1, page 3, "... since the C blocks are processed for both versions, there is no need ever to skip over a group of C blocks. Depending on which version is being viewed, however, all A blocks are skipped, or all B blocks are skipped.") The Applicants' invention sequentially appends subsequent additive data streams, it does not skip blocks of data. For these reasons, the final rejection of claim 2 is improper.

Claims 3-6 include not only include each element of allowable claim 1, but also include limitations not found in the Cookson reference. The Applicants therefore respectfully assert that these claims are allowable as well.

3. Rejection of Claim 11

In paragraph 1, the Examiner rejects claim 11 under 35 U.S.C. § 102 and the Cookson reference. The Examiner alleges that the Cookson reference discloses determining if the data segment is stored in a current context for the data stream, if so, transmitting an alias tag in lieu of the data segment, and if not, storing the data segment in the current context. The Examiner relies on a portion of the Cookson reference that describes that blocks contain pointer flags and pointers, and that a 00 pointer flag indicates that no pointer field will follow.

Claim 11 includes all of the limitations of claim 1, and is patentable on this basis alone. Also, the Cookson reference does not disclose determining whether the data segment is stored in a current context, nor does it disclose the storing of an alias tag. *Context* is not the same as *content*, nor is there any need for the notion of a "current" context in Cookson, since it does not handle multiple

protocols. For the reasons described above, Applicants respectfully traverse this rejection and request allowance of claim 11.

4. Rejection of Claim 12

In paragraph 1 of the Final Office Action, claim 12 is rejected under 35 U.S.C. § 102 as unpatentable over the Cookson reference. The Office Action alleges that Cookson discloses a system that can handle a non-random access data stream because it discloses data stored on the disk in blocks at col. 2 line 44.

Claim 12 includes all of the limitations of claim 1, and is patentable on this basis alone. Also, the Applicants respectfully disagree that the Cookson reference discloses a system that can handle non-random access to data. Data stored in disks in blocks can certainly be randomly accessed. Accordingly, the Applicants respectfully disagree with the characterization of the Cookson reference and request allowance of claim 12.

5. Rejection of Claims 13-30

In paragraph 1, the Office Action rejects claims 13-30 under the same rationale as the rejection of claims 1-6 and 11. For the foregoing reasons, the Applicants respectfully traverse this rejection as well, and request allowance of claims 13-30.

B. Rejections Under 35 U.S.C. § 103

1. Rejection of Claims 7-10

In paragraph 2, the Final Office Action rejects claims 7-10 under 35 U.S.C. § 103 as being unpatentable over the Cookson reference in view of the Fuller and Fielding references.

a) The Examiner has not established a Prima Facie Case of Obviousness

The Applicants disagree that the Cookson and Fuller references can be combined in accordance with 35 U.S.C. § 103. The mere fact that it may have been within the capabilities of one skilled in the art to modify the teachings of one reference with another reference is not sufficient to establish a prima facie case of obviousness. MPEP § 2143.01. Further, any motivation to combine

the references to arrive at the claimed invention must be found in the prior art, and not constructed in hindsight based on the Applicants' disclosure. MPEP § 2143.

The Examiner suggests that the combination of the Cookson and Fuller references would be motivated by a desire to provide the customer more choices to select different versions of the data stream, but provides no explanation as to why such a desire would lead one skilled in the art from the Cookson reference to the Fuller reference.

The Examiner also claims that it is a mere design choice to select the data on a local hard disk or VCR or through a network on a separate machine. The Applicants respectfully disagree with this statement. The storage and retrieval of video data is a difficult undertaking for ordinary network systems, and the choice to do so locally or remotely over a network is hardly a simple matter of design choice. The Applicants respectfully suggest that the Cookson and Fuller references can only be combined with the aid of hindsight reconstruction. Accordingly, the Applicants respectfully traverse the rejection of claims 7 and 8, and request allowance of these claims.

b) Rejection of Claims 7 and 8

With respect to claims 7 and 8, the Examiner admits that the Cookson reference does not disclose or teach read or write modules on the same computer or on separate computers, but alleges that the Fuller reference, which discloses a computer video system, could be used to transmit video programming to a customer.

The Applicants respectfully disagree. First, dependent claims 7 and 8 incorporate all of the limitations of claims 2 and 1. As described above with respect to the Office Action's § 102 rejection, neither the Cookson reference nor the Fuller reference discloses a system capable of handling data streams with different protocol versions. Claims 7 and 8 are patentable on this basis alone.

c) Rejection of Claim 9

With respect to claim 9, the Examiner alleges that although the combination of Cookson and Fuller do not disclose delimiting the data segment in the data stream using beginning and ending

tags, Fielding discloses the technique of using language and entity tags on data streams to verify its function.

However, claim 9 is allowable for two reasons. First, dependent claim 9 includes all of the limitations of claim 1, and is patentable on this basis alone. Second, although the use of tags in messages is old in the art, the language and entity tags referred to in the Fielding reference are not analogous to the beginning and ending tags described in the Applicants' invention.

d) Rejection of Claim 10

With respect to claim 10, the Examiner alleges that the combination of the Cookson, Fielding, and Fuller references discloses having no additional tags in the data segment between the begin and the end tags.

Claim 10 incorporates all of the limitations of claims 9 and 1 and is patentable on this basis alone. Also, the absence of additional tags between the begin tag and the end tag is not disclosed in any of the cited references. The Examiner implies that the sync word in the Cookson reference is analogous to the beginning and end tags in the Applicants' invention. However, this is not the case. The sync word described in the Cookson reference is unique and does not occur anywhere in the data stream. However, even if the sync word alone were analogous to a beginning or an end tag (and it is not) it is not true that no additional words or tags can be embedded between sync words in the Cookson reference. In fact, the opposite is usually the case. Accordingly, claim 10 is patentable over the cited references on this basis as well and the Applicants request allowance of this claim.

IV. CONCLUSION

In conclusion, independent claims 1, 13, 19, 24, and 28, 29, and 30 of the present application recite novel features that are not found in or suggested by the cited references. In addition, claims 2-12, 14-18, 20-23, and 25-27 dependent thereon include additional novel features and are even more remote from the teachings of the cited references. Therefore, the Applicants respectfully request the allowance of the present application.

In view of the foregoing, it is submitted that this application is now in good order for allowance and such allowance is respectfully requested. Should the Examiner believe minor matters remain that can be resolved in a telephone interview, the Examiner is urged to call the Applicants' undersigned attorney.

Respectfully submitted,

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By their attorneys,

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